UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/991,006	11/21/2001	Richard Gillett	EMC-04-052	3449

24227 7590 01/24/2007 EMC CORPORATION OFFICE OF THE GENERAL COUNSEL 176 SOUTH STREET HOPKINTON, MA 01748	**EXAMINER** COULTER, KENNETH R

ART UNIT	PAPER NUMBER
2141	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/24/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

PTOL-90A (Rev. 10/06)

	Application No.	Applicant(s)
Office Action Summary	09/991,006	GILLETT ET AL.
	Examiner	Art Unit	
	Kenneth R. Coulter	2141	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>30 October 2006</u>.

2a)☒ This action is **FINAL.**   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All   b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date _____.
5)☐ Notice of Informal Patent Application
6)☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35

U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2.   Claims 1 – 21 are rejected under 35 U.S.C. 102(e) as being anticipated by

Lumelsky et al. (U.S. Pat. No. 6,460,082) (Management of Service-Oriented

Resources Across heterogeneous Media Servers Using Homogeneous Service

Units and Service Signatures to Configure the Media Servers).

2.1   Regarding claim 1, Lumelsky discloses a system for delivering content

over a data network, comprising:

a data storage device for storing content to be delivered over the data

network (Figs. 1, 2, 4, 5, 6);

a server process capable of monitoring the data network for responding to

a request to serve selected content over the data network (Fig. 5; col. 11, lines

39 – 46); and

a file system capable of communicating with the server process and capable of processing the request to process *meta-data that identifies attributes of the request* and being representative of a level of service to be provided to the request (Fig. 2, item 152; col. 5, lines 39 – 55; col. 7, lines 28 - 51).

2.2   Per claim 2, <u>Lumelsky</u> teaches a service level manager capable of determining, as a function of the meta-data, whether the selected content may be serviced in compliance with the associated level of service (Abstract; Fig. 2; col. 5, lines 39 – 55; col. 7, lines 28 - 51).

2.3   Regarding claim 3, <u>Lumelsky</u> discloses that the server process includes a process for directing the request to the service level manager (Fig. 5; col. 11, lines 39 – 46).

2.4   Per claim 4, <u>Lumelsky</u> teaches that the request analyzer process includes a request analyzer process for analyzing the request to identify the attributes of the request (Fig. 2; col. 7, lines 28 - 53).

2.5   Regarding claim 5, <u>Lumelsky</u> discloses that the request analyzer process includes means for identifying attributes of the request including one or more of requestor identification, user ISP identification, transmission throughput, client, and CDN server identification (Fig. 2; col. 7, lines 28 - 40).

2.6   Per claim 6, <u>Lumelsky</u> does not explicitly teach that the service level

manager includes a process for directing the server process to employ a file

open process for requesting the file system to access data associated with the

selected content.

However, a file open process in inherent in <u>Lumelsky</u> in order for databases to be

accessed.

2.7   Regarding claim 7, <u>Lumelsky</u> discloses a representation of the level of

service to provide the request (Fig. 2; col. 7, lines 28 - 51).

2.8   Per claim 8, the rejection of claims 6 and 7 under 35 USC 102(e)

(paragraphs 2.6 and 2.7 above) applies fully.

2.9   Regarding claims 9 – 11, <u>Lumelsky</u> discloses a service level manager that

associated with a level of service to provide (Abstract; Figs. 2, 4; col. 7, lines 28 -

51); embeds into a pathname, service level information to be associated with the

selected content (Abstract; Figs. 2, 4; col. 7, lines 28 - 51).

2.10   Per claims 12 and 13, <u>Lumelsky</u> teaches that the file system includes

parsing a pathname associated with the selected content to identify a level of

service to provide to the request content (Abstract; Figs. 2, 4; col. 7, lines 28 -

51); a process for associating the selected content with one of a plurality of

different service levels (Abstract; Figs. 2, 4; col. 7, lines 28 - 51).

2.11 Regarding claims 14 – 18, Lumelsky discloses a scheduling process for

generating a schedule for servicing the request (Fig. 3b; col. 8, line 59 – col. 9,

line 9; col. 16, lines 10 - 18); an admission process for employing the schedule to

determine whether the request can be accommodated at the level of service

associated with the request (col. 7, lines 28 – 67; col. 2, lines 54 - 66); a deadline

parameter representative of a time constraint for processing the request (Fig. 3b;

col. 8, line 59 – col. 9, line 9; col. 16, lines 10 - 37); deadline parameter to

generate the schedule for servicing the request (Fig. 3b; col. 8, line 59 – col. 9,

line 9; col. 16, lines 10 - 37).

2.12 Per claim 19, Lumelsky teaches a slack-time process for arbitrating

between scheduling requirements of content having different priorities of service

levels (Fig. 3b; col. 8, line 59 – col. 9, line 9; col. 14, lines 53 – 57; col. 16, lines

10 - 16).

2.13 Regarding claim 20, Lumelsky discloses a control process for managing a

system resource for controlling a rate at which service are provided (Abstract;

Figs. 2, 5).

2.14 Per claim 21, Lumelsky teaches that the control process manages a

system resource selected from the group of data storage, system memory,

processor resources, and network throughput (Fig. 5; col. 7, lines 28 – 32; col. 4,

lines 30 - 39).

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35

U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 - 21 are rejected under 35 U.S.C. 102(b) as being anticipated by

Goebels et al. (Mapping User-Level QoS to System-Level QoS and Resources in

a Distributed Lecture-on-Demand System); Proceedings of the 7th IEEE

Workshop on Future Trends of Distributed Computing Systems; pp. 197 - 203;

Dec. 1999.

4.1   Regarding claim 1, Goebels discloses a system for delivering content over

a data network, comprising:

a data storage device for storing content to be delivered over the data

network (Abstract; Fig. 2; Section 3.2);

a server process capable of monitoring the data network for responding to

a request to serve selected content over the data network (Abstract; Section 3.2);

and

a file system capable of communicating with the server process and

capable of processing the request to process *meta-data that identifies attributes*

of the request and being representative of a level of service to be provided to the

request (Abstract; Figs. 1 – 3; Section 2; Section 3.2; Section 5).

4.2   Per claim 2, Goebels teaches a service level manager capable of

determining, as a function of the meta-data, whether the selected content may be

serviced in compliance with the associated level of service (Abstract; Section

3.2).

4.3   Regarding claim 3, Goebels discloses that the server process includes a

process for directing the request to the service level manager (Abstract; Fig. 2;

Section 3.2).

4.4   Per claim 4, Goebels teaches that the request analyzer process includes a

request analyzer process for analyzing the request to identify the attributes of the

request (Abstract; Section 3.2; Section 5).

4.5   Regarding claim 5, Goebels discloses that the request analyzer process

includes means for identifying attributes of the request including one or more of

requestor identification, user ISP identification, transmission throughput, client, and CDN server identification (Abstract; Fig. 2; Section 2; Section 3.2; Section 5).

4.6   Per claim 6, <u>Goebels</u> does not explicitly teach that the service level manager includes a process for directing the server process to employ a file open process for requesting the file system to access data associated with the selected content.

However, a file open process in inherent in <u>Goebels</u> in order for databases to be accessed.

4.7   Regarding claim 7, <u>Goebels</u> discloses a representation of the level of service to provide the request (Abstract; Section 3.2).

4.8   Per claim 8, the rejection of claims 6 and 7 under 35 USC 102(e) (paragraphs 4.6 and 4.7 above) applies fully.

4.9   Regarding claims 9 – 11, <u>Goebels</u> discloses a service level manager that associated with a level of service to provide (Section 5); embeds into a pathname, service level information to be associated with the selected content (Section 5).

4.10 Per claims 12 and 13, <u>Goebels</u> teaches that the file system includes parsing a pathname associated with the selected content to identify a level of

service to provide to the request content (Sections 2, 5); a process for

associating the selected content with one of a plurality of different service levels

(Sections 2, 5).

4.11   Regarding claims 14 – 18, Goebels discloses a scheduling process for

generating a schedule for servicing the request (Section 3.1 "deadline

information"); an admission process for employing the schedule to determine

whether the request can be accommodated at the level of service associated

with the request (Abstract; Sections 3.2, 5); a deadline parameter representative

of a time constraint for processing the request (Section 3.1); deadline parameter

to generate the schedule for servicing the request (Section 3.1).

4.12   Per claim 19, Goebels teaches a slack-time process for arbitrating

between scheduling requirements of content having different priorities of service

levels (Abstract; Sections 3.2, 5).

4.13   Regarding claim 20, Goebels discloses a control process for managing a

system resource for controlling a rate at which service are provided (Abstract;

Sections 3.2, 5).

4.14   Per claim 21, Goebels teaches that the control process manages a system

resource selected from the group of data storage, system memory, processor

resources, and network throughput (Abstract; Fig. 2; Sections 3.2, 5).

Response to Arguments

4.   Applicant's arguments filed 10/30/06 have been fully considered but they are not persuasive.

Applicant argues that "Lumelsky does not teach or suggest levels of service at which requests are handled. As set forth above, Lumelsky uses meta-data to determine whether particular servers are capable of servicing particular requests. The request of Lumelsky is not processed in order to process meta-data that identifies attributes of the request."

Examiner disagrees.

Lumelsky discloses "each service unit is associated with metadata referred to as a "service signature" which is implemented to **customize the service commitment** of a meta-resource, e.g., by delivering hints to the meta-resource about resource management." (col. 5, lines 43 – 47).

Conclusion

5.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory

action is not mailed until after the end of the THREE-MONTH shortened statutory

period, then the shortened statutory period will expire on the date the advisory

action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be

calculated from the mailing date of the advisory action. In no event, however, will

the statutory period for reply expire later than SIX MONTHS from the mailing

date of this final action.

6.   Any inquiry concerning this communication or earlier communications from

the examiner should be directed to Kenneth R. Coulter whose telephone number

is 571 272-3879. The examiner can normally be reached on M – F, 7 am – 3:30

pm.

If attempts to reach the examiner by telephone are unsuccessful, the

examiner's supervisor, Rupal Dharia can be reached on 571 272-3880. The fax

phone number for the organization where this application or proceeding is

assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

krc